

Listing of Claims

Claim 1 (currently amended). A tracing system, comprising:

a plurality of compression modules that each receive a trace data input from a source of trace data having a plurality of different trace data types, each of said plurality of compression modules implementing a different compression method ~~being configured~~ to compress a piece of trace data to produce a piece of compressed trace data; and

a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression;

a trace bus, said selected piece of compressed trace data transmitted on said trace bus;

said compression selector module signaling the compression method that was used to compress said selected piece of compressed trace data; and

said tracing system signaling the trace data type of said selected piece of compressed trace data transmitted on said trace bus.

Claim 2 (currently amended). The tracing system of claim 1, further comprising a First In First Out (FIFO) buffer that is coupled to said compression selector module, said FIFO buffer storing said selected piece of compressed trace data prior to transmission on a said trace bus.

Claim 3 (original). The tracing system of claim 1, wherein said plurality of compression modules includes one or more of a delta compression module, a bit-block compression module, a run length encoding module, and a variable bit-block compression module.

Claim 4 (original). The tracing system of claim 1, wherein said compression selector module selects one of said plurality of compression modules in accordance with a default selection.

Claim 5 (canceled).

Claim 6 (currently amended). A computer program product comprising:

computer-readable program code for causing a computer to describe a plurality of compression modules that each receive trace data input from a source of trace data having a plurality of different trace data types, each of said plurality of compression modules ~~being configured~~ implementing a different compression method to compress a piece of trace data to produce a piece of compressed trace data; ~~and~~

computer-readable program code for causing a computer to describe a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression;

computer-readable program code for causing a computer to describe transmitting said selected piece of compressed trace data on a trace bus;

computer readable program code for causing said selector module to signal the compression method that was used to compress said selected piece of compressed trace data;

computer readable program code for signaling the trace data type of said selected piece of compressed trace data; and

a computer-usable medium configured to store the computer-readable program codes.

Claim 7 (currently amended). A method for enabling a computer to generate tracing logic, comprising:

transmitting computer-readable program code to a computer, said computer-readable program code including:

computer-readable program code for causing a computer to describe a plurality of compression modules that each receive trace data input from a source of trace data having a plurality of different trace data types, each of said plurality of compression modules ~~being configured~~ implementing a different compression method to compress a piece of trace data to produce a piece of compressed trace data; ~~and~~

computer-readable program code for causing a computer to describe a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced

by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression;

computer-readable program code for causing a computer to describe transmitting said selected piece of compressed trace data on a trace bus;

computer readable program code for causing said selector module to signal the compression method that was used to compress said selected piece of compressed trace data; and

computer readable program code for signaling the trace data type of said selected piece of compressed trace data.

Claim 8 (original). The method of claim 7, wherein computer-readable program code is transmitted to said computer over the Internet.

Claim 9 (currently amended). A computer data signal embodied in a transmission medium comprising:

computer-readable program code for causing a computer to describe a plurality of compression modules that each receive trace data input from a source of trace data having a plurality of different trace data types, each of said plurality of compression modules ~~being configured~~ implementing a different compression method to compress a piece of trace data to produce a piece of compressed trace data; ~~and~~

computer-readable program code for causing a computer to describe a compression selector module coupled to said plurality of compression modules, said compression selector module receiving pieces of compressed trace data that are produced

by said plurality of compression modules, said compression selector module selecting the piece of compressed trace data that exhibits a desired level of trace data compression;

computer-readable program code for causing a computer to describe transmitting said selected piece of compressed trace data on a trace bus;

computer readable program code for causing said selector module to signal the compression method that was used to compress said selected piece of compressed trace data; and

computer readable program code for signaling the trace data type of said selected piece of compressed trace data.

Claim 10 (currently amended). A tracing method, comprising:

compressing a piece of trace data having one of a plurality of different trace data types using a plurality of compression methods to produce a corresponding plurality of pieces of compressed trace data;

selecting one of said plurality of pieces of compressed trace data; ~~and~~

outputting said selected piece of compressed trace data on a trace bus;

signaling the compression method used to produce said selected piece of compressed trace data; and

signaling the trace data type of said selected piece of compressed trace data.

Claim 11 (original). The tracing method of claim 10, wherein said compressing includes compressing said piece of trace data with one or more of delta compression, bit-block compression, run length encoding, and variable bit-block compression.

Claim 12 (original). The tracing method of claim 10, wherein said selecting comprises identifying the piece of compressed trace data that has the least number of bits.

Claim 13 (original). The tracing method of claim 10, wherein said selecting is based on a default selection.

Claim 14 (cancelled).

Claim 15 (currently amended). A tracing method, comprising:

compressing a piece of trace data having one of a plurality of different trace data types using a plurality of compression methods to produce a corresponding plurality of pieces of compressed trace data;

determining which of said plurality of pieces of compressed trace data exhibits a desired level of trace data compression;

selecting one of said plurality of pieces of compressed trace data based upon said determination; and

outputting said selected piece of compressed trace data on a trace bus;

signaling the compression method used to compress said selected piece of compressed trace data; and

signaling the trace data type of said selected piece of compressed trace data.

Claim 16 (original). The tracing method of claim 15, wherein said determining comprises identifying the piece of compressed trace data that has the least number of bits.

Claim 17 (original). The tracing method of claim 15, wherein said compressing includes compressing said piece of trace data with one or more of delta compression, bit-block compression, run length encoding, and variable bit-block compression.

Claim 18 (original). The tracing method of claim 15, wherein said selecting is based on a default selection.

Claim 19 (cancelled).

Claim 20 (currently amended). A tracing system, comprising:

a plurality of compression modules that each receive a stream of input trace information, said stream of input trace information including a plurality of pieces of input trace data wherein each piece of input trace data has an associated trace data type, each of said plurality of compression modules being configured to receive said plurality of pieces of input trace data and implement a different compression method to compress said plurality of pieces of input trace data to produce a corresponding plurality of pieces of compressed trace data compressed by different compression methods; and

a compression selector module coupled to said plurality of compression modules, wherein upon receipt of a piece of compressed trace data from each of said plurality of compression modules, said received pieces of compressed trace data corresponding to a

single piece of input trace data, said compression selector module selects the piece of compressed trace data that exhibits a desired level of trace data compression;

a trace bus, said selected piece of compressed trace data transmitted on said trace bus;

said compression selector module signaling the compression method that was used to compress said selected piece of compressed trace data; and

said tracing system signaling the trace data type of said selected piece of compressed trace data transmitted on said trace bus.

Claim 21 (original). The tracing system of claim 20, wherein said selection by said compression selector module is performed for compressed trace data generated for each piece of input trace data.

Claim 22 (original). The tracing system of claim 20, wherein said selection is independently performed for compressed trace data generated from each piece of input trace data.

Claim 23 (original). The tracing system of claim 20, wherein said plurality of compression modules includes one or more of a delta compression module, a bit-block compression module, a run length encoding module, and a variable bit-block compression module.